COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

This Air Force Instruction (AFI) implements Air Force Policy Directive (AFPD) 16-14, *Information Protection*, and establishes Air Force information assurance requirements for compliance with Public Law 100-235, Computer Security Act of 1987; Title 44 United States Code Section 3602; Office of Management and Budget (OMB) Circular A-130, *Management of Federal Information Resources*; OMB Bulletin 90-08, *Guidance for Preparation of Security Plans for Federal Computer Systems that Contain Sensitive Information*; Title 10 *United States Code (USC), Section 2224; Department of Defense Directive-Type Memorandum (DTM) 08-039 *Commercial Wireless Metropolitan Area Network Systems and Technologies* or subsequent implementing DoDI; Department of Defense Instruction (DoDI) 5205.13 *Defense Industrial Base Cyber Security/Information Assurance*; Department of Defense Directive (DoDD) 8500.01, *Information Assurance (IA)*; DoDI 8500.02, *Information Assurance (IA) Implementation*; DoDI 8420.01, *Commercial Wireless Local-Area Network (WLAN) Devices, Systems, and Technologies*, DoDD 8100.2, *Use of Commercial Wireless Devices, Services and Technologies in the Department of Defense (DoD) Global Information Grid*; Chairman Joint Chiefs of Staff Instruction (CJCSI) 6510.01D, *Information Assurance (IA) and Computer Network Defense (CND)*; and Chairman Joint Chiefs of Staff Manual (CJCSM) 6510.01, *Defense-In-Depth: Information Assurance (IA) and Computer Network Defense (CND)*. This Instruction provides the directive requirements for IA as outlined in AFPD 33-2. This Instruction applies to all Air Force military, civilian, and contractor personnel under contract by DoD who develop, acquire, deliver, use, operate, or manage Air Force information systems (IS). This Instruction applies to the Air National Guard and Air Force Reserve. Use of extracts from this Instruction is

encouraged. Committee on National Security Systems Instruction (CNSSI) No. 4009, National Information Assurance Glossary, explains other terms. Direct questions or comments on the contents of this Instruction, through appropriate command channels, to Secretary of the Air Force, Network Services Directorate (SAF/A6N), 1800 Air Force Pentagon, Suite 4C1059, Washington DC 20330-1800. Refer recommended changes and conflicts between this and other publications to AFNIC/EASD, 203 W. Losey Street, Room 1100, Scott AFB IL 62225-5222, through appropriate channels, using Air Force Form 847, Recommendation for Change of Publication. Provide an information copy to SAF/A6N. Send any supplements to this publication to SAF/A6N for review and coordination prior to approval and publication. Provide a copy of each final supplement to AFNIC/EASD. Ensure all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-363, Management of Records, and disposed of in accordance with Air Force Records Information Management System Records Disposition Schedule (RDS) located at **https://afrims.amc.af.mil/rds_series.cfm**. See Attachment 1 for a glossary of references and supporting information. The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force.

SUMMARY OF CHANGES

The additions include a link to the AF IA Community of Practice (CoP) and reflect current Department of Defense policies and instructions concerning defense industrial base cyber security/information assurance activities as well as the use and applicability of wireless local area networks and wireless metropolitan area network connecting to the Air Force portion of the Global Information Grid. Furthermore, several organizational names and office symbols have been changed due to organizational realignments or reorganizations. Additionally, the reference list in Attachment 1 was updated.

Chapter 1

GENERAL INFORMATION

1.1. Introduction. This AFI provides general direction for implementation of IA and management of IA programs according to AFPD 33-2. Compliance ensures appropriate measures are taken to ensure the availability, integrity, and confidentiality of Air Force ISs and the information they process. Using appropriate levels of protection against threats and vulnerabilities help prevent denial of service, corruption, compromise, fraud, waste, and abuse.

1.2. Applicability.

1.2.1. Applies to all ISs owned, operated, or supported by the Air Force, including IS components of weapon systems, ISs that provide the management infrastructure and connections among other ISs, and networks that are used to process, store, display, transmit or protect DoD information, regardless of classification or sensitivity. This document is also binding on all users that operate, connect, or interact with information systems owned, maintained, and controlled by the DoD.

1.2.2. More restrictive DoD and Intelligence Community directive requirements governing systems under the purview of the Intelligence Community take precedence over this instruction. For Sensitive Compartmented Information (SCI) systems, refer to Intelligence Community Directive (ICD) 503 and other Intelligence Community directives.

1.2.3. More detailed implementation guidelines are contained in IA reference documents and specialized publications cited throughout this AFI.

1.3. Objectives. Adequate security of Air Force information and supporting information technology (IT) assets is a fundamental management responsibility. The Air Force implements and maintains the IA Program to adequately secure its information and IT assets. The objectives, listed below, will be met through the effective employment of the Air Force's core IA disciplines of Communications Security (COMSEC), Computer Security (COMPUSEC), and Emissions Security (EMSEC). The IA Program:

1.3.1. Ensures Air Force ISs operate securely by protecting and maintaining the confidentiality, integrity, and availability of IS resources and information processed throughout the system's life cycle.

1.3.2. Protects information commensurate with the level of risk and magnitude of harm resulting from loss, misuse, unauthorized access, or modification.

Chapter 2

ROLES AND RESPONSIBILITIES

2.1. Under Secretary of the Air Force (SAF/US).

2.1.1. Ensures all Air Force-owned or controlled space systems meet the system specific IA requirements according to DoDD 8581.1, *Information Assurance (IA) Policy for Space Systems Used by the Department of Defense*.

2.1.2. For all space acquisitions, ensures IA requirements are implemented in all phases of acquisitions according to the provisions in NSS 03-01, *Guidance for DoD Space Systems Acquisition Process*.

2.2. Assistant Secretary of the Air Force (Acquisition) (SAF/AQ).

2.2.1. Ensures all IA requirements are implemented in all phases of non-space IS and service acquisitions, for research and development, test and evaluation, and in contracts.

2.2.2. Ensures Program Executive Officers (PEO) and Program Managers (PM) adhere to mandated IA acquisition standards outlined in DoDI 8580.1, *Information Assurance (IA) in the Defense Acquisition System*; the requirements of this instruction; and the certification and accreditation (C&A) requirements of AFI 33-210, *Certification and Accreditation (C&A) Program)*.

2.2.3. Ensures each program and system under its span of control develops an IA strategy according to this instruction and DoDI 8580.1.

2.2.4. Manages the process for preparing and reviewing Air Force acquisition program strategies and ensures IA has been appropriately addressed.

2.2.5. Represents the Air Force on policy and procedural matters regarding IA in the acquisition system.

2.2.6. Coordinates with USAF/A2 to ensure that Intelligence communications and information equipment, systems, and service acquisition efforts address IA life cycle requirements. Will coordinate with USAF/A2 to assign Air Force PM representatives for Intelligence systems, equipment, networks, or services that will deploy on the Air Force-provisioned portion of the Global Information Grid (AF-GIG) or will utilize AF GIG capabilities but which were developed and/or acquired by non-Air Force entities.

2.3. Deputy Undersecretary of the Air Force, International Affairs (SAF/IA). Processes all requests for transfers of COMSEC materials and associated information for foreign governments and international organizations.

2.4. Secretary of the Air Force, Office of Warfighting Integration and Air Force Chief Information Officer (SAF/CIO A6). SAF/CIO A6 has the overall responsibility to develop, implement and enforce policies, standards, strategies, and procedures to ensure the Air Force executes the most effective and efficient acquisition, integration, application, and management of information and IT assets. Further, as the Air Force Chief Information Officer, SAF/CIO A6 is the responsible official for Air Force owned and operated ISs.

2.4.1. Ensures IA is an integral part of ISs and applications design, guaranteeing appropriate IA controls are in place and provided to protect mission data and system resources.

2.4.2. Establishes the AF-GIG acceptable baseline risk level and IA controls.

2.4.3. Provides guidance, to implementing organizations, to mitigate threats commensurate with that risk level.

2.4.4. Provides guidance and solutions to organizations with operational requirements to meet the established national, DoD, Joint Chiefs of Staff, or Air Force baseline risk levels and controls for ISs.

2.4.5. Defines IA performance measures and metrics to identify enterprise-wide IA trends, to include IA related vulnerabilities and measures to mitigate them with an updated status of mitigation efforts using the program guidance in AFI 33-210.

2.4.6. Appoints the Designated Accrediting Authority (DAA) for the AF-GIG (AF-DAA) to execute specific responsibilities as outlined in AFI 33-210.

2.4.7. Review Internet Waiver/User Enclave Waiver requests for compliance to DOD GIG policy, DISN capability, and technical security requirements.

2.5. Secretary of the Air Force, Network Services Directorate (SAF/A6N). SAF/A6N is the Air Force focal point to create an integrated, secure, net-centric environment to enable all aspects of the Air Force mission.

2.5.1. Develops, implements, and oversees an Air Force IA program focused on assurance of Air Force-specific information and ISs consistent with DoD policies and defense-in-depth.

2.5.2. Directs the establishment of IA policies and procedures. Informs Air Force secretariat, Headquarters Air Force, and MAJCOMs about changes to DoD and Air Force IA management policies and procedures.

2.5.3. Oversees IA requirements planning, programming, budgeting, and execution in the Air Force budget process and advocates for IA funding and manning with the Office of the Secretary of Defense and Congress.

2.5.4. Documents required IA capabilities in the Warfighter and Agile Combat Support sub-enterprise architectures. Ensures IA capabilities are appropriately federated across the Air Force enterprise architecture.

2.5.5. Develops concepts and establishes policy for integrated support and configuration management of IA equipment.

2.5.6. Plans, programs, funds, implements, manages, and supports logistically the COMSEC aspects of programs, including centralized record maintenance of COMSEC equipment, components, and material.

2.5.7. Carries out FISMA-related Chief Information Officer (CIO) responsibilities and serves as SAF/CIO A6's primary liaison to the Air Force's IA personnel.

2.5.7.1. Provides detailed information on the FISMA requirements via the annual Air Force FISMA Reporting Guidance.

2.5.7.2. Manages the annual assessment of the Air Force IA Programs as required by FISMA. Requests, through channels, support from Air Force organizations. The support will allow the Air Force Senior Information Assurance Officer (AF SIAO) to answer the annual FISMA report questions posed by the Office of Management and Budget.

2.5.7.3. Collects and reports IA management, financial, and readiness data to meet DoD IA internal and external reporting requirements.

2.5.7.4. Ensures IA requirements are addressed and visible in all investment portfolios and investment programs according to AFI 33-401, *Implementing Air Force Architectures*, and AFI 33-210.

2.5.8. Manages the IA education, training, and certification for Air Force IA professionals and users according to DoD 8570.01-M, *Information Assurance Workforce Improvement Program*, *Air Force Information Assurance Certification Implementation Plan*.

2.5.8.1. Defines and promulgates IA education, training, and certification standards.

2.5.8.2. Establishes timelines IA professionals must maintain to meet DoD and Air Force standards.

2.5.8.3. Ensures the education, training, and certification of Air Force IA professionals and the awareness and training of Air Force IT users according to paragraph 3.38.

2.5.9. Ensures personnel security is an integral part of the overall Air Force IA program and that personnel assigned to IA duties meet established personnel security requirements in AFI 31-501, *Personnel Security Program Management*.

2.5.10. Represents the Air Force as voting member on DoD Configuration Control Boards (CCB) or related to IA programs or issues (i.e., DoD Ports, Protocols, and Services [PPS] CCB).

2.5.11. Provides Air Force representation on DoD working groups on or related to IA programs or issues.

2.5.12. Coordinates with the other military departments and government agencies to eliminate duplication and to exchange technical data on IA programs.

2.5.13. Appoints in writing the Air Force Certified TEMPEST Technical Authority (CTTA).

2.5.14. Provides Air Force representation to DoD Information Assurance Technology Analysis Center, a formally chartered DoD institution that helps researchers, engineers, and program managers locate, analyze, use, and exchange scientific and technical information according to DoDD 3200.12, *DoD Scientific and Technical Information (STI) Program (STIP)*.

2.6. Deputy Chief of Staff, Intelligence, Surveillance, and Reconnaissance (USAF/A2). Manages, integrates and implements all IA capabilities for all SCI ISs and all ISs within SCI facilities.

2.7. Office of the Air Force Civil Engineer (HQ USAF/A7C). Serves as the Air Force focal point for design and construction of facilities containing radio frequency interference and electromagnetic interference shielding.

2.8. Headquarters Air Education and Training Command (HQ AETC).

2.8.1. Conducts and integrates IA education and training into initial military training courses, Air Force accession programs, formal schools, professional military education courses, and specialized training in Air Force Specialty Code-awarding courses according to AFI 36-2201V1, *Training Development, Delivery, and Evaluation*, and the specific IA education and training requirements of DoD 8570.01-M.

2.8.1.1. Provides students with:

2.8.1.1.1. An understanding of IA and of the threat to and vulnerabilities of Air Force ISs.

2.8.1.1.2. Knowledge of countermeasures available to overcome the threat.

2.8.1.1.3. Ways to apply the countermeasures.

2.8.1.2. Increases the depth of the formal training programs to enhance students' potential to become involved in planning, programming, managing, operating, or maintaining information systems.

2.8.1.3. Ensures courses address those aspects of IA that could affect the success of critical operations.

2.8.2. Administers IA education to students attending Air University courses.

2.8.3. Coordinates IA education materials and course curriculum with AFNIC to ensure they are current and meet the needs of a modern Air Force IA workforce.

2.9. Headquarters Air Force Materiel Command (HQ AFMC).

2.9.1. Supports PEOs and PMs in the research, development, prototyping, test and evaluation, assessment, production, and sustainment of IA or IA-enabled capabilities of non-space Air Force systems, products, and techniques in consultation with the other MAJCOMs.

2.9.1.1. Develops and sustains processes for rapid IA capability insertion to address new or rapidly developing threats to the AF-GIG.

2.9.1.2. Conducts the Air Force Communications-Computer Systems Security Research, Development, Test, and Evaluation Program according to AFI 63-101, *Acquisition and Sustainment Life Cycle Management*.

2.9.2. Ensures non-space PEOs and PMs comply with IA requirements outlined in DoDI 8580.1, AFI 63-101, this instruction, and AFI 33-210.

2.9.3. Ensures advanced development programs are reviewed for interoperability with IA equipment and systems.

2.9.4. Assists AFNIC in developing IA guidance and procedures for non-space ISs in the acquisition and development life cycle.

2.9.5. Establishes IA education and training for assigned PEOs and PMs according to the requirements outlined in DoD 8570.01-M.

2.9.6. Sustains a Public Key Infrastructure (PKI) program office to implement the Air Force portion of the DoD PKI and execute the designated responsibilities in AFI 33-202. Volume 6, *Identity Management* (will become AFSSI 8520, *Identity Management)*.

2.9.7. Sustains a Cryptographic Modernization program office to implement the Air Force portion of NSA's COMSEC program and execute the designated responsibilities in AFSSI 4000-series publications.

2.9.8. Ensures IA-related configuration control information under its inventory control is available to the operations, maintenance, and logistics support organizations to maintain the integrity of countermeasures during an IS's life cycle.

2.9.9. Establishes configuration control procedures to ensure the continuity and integrity of countermeasures for information technology processing national security information under its inventory management.

2.9.10. Ensures technical analyses, cost estimates, and modification proposals for information systems that process national security information consider TEMPEST design and installation requirements. Refer to: National Security Telecommunications and Information Systems Security Advisory Memorandum TEMPEST/2-95, *Red/Black Installation Guidance*, and AFSSI 7700, *Emissions Security*.

2.9.11. Cryptologic Systems Group (CPSG). Provides technical and PM support to IA Lead Command programs, projects, and initiatives according to Air Force IA specialized publications.

2.10. Headquarters Air Force Space Command (HQ AFSPC).

2.10.1. Supports PEOs and PMs in the research, development, test and evaluation, and sustainment of IA or IA-enabled capabilities of Air Force space systems and products in consultation with the other MAJCOMs. This includes developing and sustaining processes for rapid IA capability insertion to address new or rapidly developing threats to the AF-GIG.

2.10.2. Ensures space PEOs and PMs comply with IA requirements outlined in DoDI 8580.1, NSS 03-01, this instruction, and AFI 33-210.

2.10.3. Assists AFNIC in developing IA guidance and procedures for space ISs in the acquisition and development life cycle.

2.10.4. Establishes IA education and training for space PEOs and PMs according to the requirements outlined in DoD 8570.01-M.

2.10.5. Participates in Cross Domain Solutions (CDS) program for AFSPC space mission systems. Advocates issues for customers with AFNIC. Attends CDS meetings and participates in activities as required.

2.10.6. Executes the EMSEC program for space mission systems and coordinates with the Air Force CTTA.

2.10.7. Executes duties as the AF-DAA according to AFPD 33-2 and AFI 33-210.

2.11. 24th Air Force.

2.11.1. Directs Air Force Network Defense (NetD) in accordance with AFPD 10-7, *Information Operations*.

2.11.2. DELETED.

2.11.3. Serves as the single point of contact for processing and supporting Air Force IA-related intelligence requests from Air Force and DoD intelligence entities (e.g., threat assessment against the GIG). Provides SAF/CIO A6 staff with courtesy copies of requests and responses for assessment of impact on the Air Force IA Program.

2.11.4. Identify Air Force network intelligence requirements to USAF/A2.

2.11.5. Coordinates with Joint and Defense-wide program offices to ensure interoperability of IA solutions across the GIG.

2.11.6. Directs Air Force enclave boundary defense activities, measures, and operations.

2.11.7. Serves as the single IA coordination point for Joint or Defense Programs with plan to deploy ISs to Air Force enclaves according to the responsibilities and procedures outlined in AFI 33-210.

2.11.8. Provides support to national, DoD, and Air Force level technical advisory groups (TAG) [i.e., DIACAP TAG, DoD PPS TAG, etc.], as requested by SAF/CIO A6.

2.11.9. Issues time compliance technical orders and modification kits for IA and IA-enabled equipment and ISs processing national security information under its inventory management control and scheduled for modification.

2.12. 624th Operations Center.

2.12.1. Conducts the Air Force portion of Network Defense (NetD) mission.

2.12.2. Employs mechanisms and procedures to monitor all Air Force ISs to detect, report, and document unauthorized activity (successful or unsuccessful).

2.12.3. Institutes appropriate NetD countermeasures or corrective actions. Countermeasures will be coordinated with the OPR of the appropriate policy.

2.13. 688th Information Operations Wing.

2.13.1. Serves as member of DoD TAGs, as requested by SAF/CIO A6 or AFNIC.

2.13.2. Provides information on threats, vulnerabilities, and countermeasures associated with IA.

2.13.3. Evaluates IA or IA-enabled products. Provides evaluation reports to AFNIC and applicable program management offices.

2.13.4. Develops Tactics, Techniques, and Procedures.

2.13.5. Provides EMSEC technical support according to the AFSSI 7000-series publications.

2.14. Air Force Network Integration Center (AFNIC). On behalf of SAF/CIO A6 and the Senior IA Officer, as defined in AFPD 33-2:

2.14.1. Reviews, evaluates, and interprets national, federal, and DoD IA policy and doctrine. Makes recommendations on implementation of the policy and doctrine to SAF/CIO A6.

2.14.2. Develops Air Force IA policies and procedures. Develops, coordinates, and maintains SAF/CIO A6 approved Air Force publications pertaining to IA.

2.14.3. Develops, coordinates, promulgates, and maintains Air Force (component-level) IA Controls applicable to ISs residing on or connecting to the AF-GIG, if required.

2.14.4. Provides guidance and support to MAJCOM and wing IA offices in developing, implementing, and managing their IA programs.

2.14.5. Provides guidance to acquisition managers to consider IA requirements early in the system life cycle according to AFI 63-101 and AFI 33-210.

2.14.6. Serves as a member on national, federal, and DoD TAGs as Air Force subject matter expert for IA or IA-related issues (i.e., DIACAP TAG, TEMPEST TAG, DoD PPS TAG, etc.)

2.14.7. Manages the process of assessing security features of government-produced and commercial-off-the-shelf (COTS) software and hardware subsystems, according to AFI 33-210.

2.14.8. Develops applicable IA techniques and procedures with Air Force-wide implications.

2.14.9. Processes requests for exceptions, deviations, or waivers to Air Force IA policy and instructions.

2.14.10. Serves as the Air Force Lead Command for the Air Force implementation of DoD IA programs, projects, and initiatives according to AFI 10-901, *Lead Operating Command— Communications and Information Systems Management*.

2.14.10.1. Develops the operational and maintenance concepts for all aspects of IA Lead Command programs, in coordination with participating and operating commands.

2.14.10.2. Identifies, prioritizes, and documents IA user requirements in conjunction with the MAJCOMs.

2.14.11. Manages the Air Force CDS program.

2.14.11.1. Advocates issues from customers with Air Staff and the CDS Secret Internet Protocol Router Network (SIPRNet) Connection Approval Office at Defense Information Systems Agency (DISA).

2.14.11.2. Attends CDS meetings and participates in activities as required.

2.14.11.3. Serves as the Air Force focal point for coalition networking issues specific to the Command, Control, Communications and Computers Infostructure, core e-mail, file sharing, print, collaboration tools, VTC, and web browsing capabilities. Coordinates with focal points of other functional communities (HAF/A2, etc.) on coalition networking issues for other infostructures (Intelligence, Surveillance and Reconnaissance, etc.).

2.14.12. Manages the Air Force PPS program. Advocates issues from customers with Air Staff and the DoD PPS Program Manager at DISA.

2.14.13. Manages and executes the IA Notice and Consent certification process for the Air Force according to the procedures within AFI 33-219, *Telecommunications Monitoring and Assessment Program* (Section C) (will become AFSSI 8561, *IA Notice and Consent*.

2.14.14. Executes funding provided by OSD to train and certify the Air Force IA workforce according to DoDD 8570.01 and DoD 8570.01-M.

2.14.15. Advocates and coordinates IA manpower requirements with operating and participating commands.

2.14.16. Maintains a list of recommended COTS products supporting IA and IA-enabled solutions using the Infostructure Technology Reference Model (i-TRM) process.

2.14.17. Ensures Air Force contracting guidance reflects national, federal, DoD, and Air Force IA policy and procedures.

2.14.18. Advises HQ AETC on IA education materials and course curriculum.

2.14.19. Executes the Air Force COMSEC program.

2.14.19.1. Manages COMSEC incident processing and analysis.

2.14.19.2. Manages Cryptographic Access Program. Includes development and promulgation of AFCOMSEC Form 9, *Cryptographic Access Certificate*.

2.14.19.3. Performs COMSEC responsibilities as mandated by the AFSSI 4000-series publications. This includes developing necessary forms:

2.14.19.3.1. AF Form 4167, *Two Person COMSEC Material Inventory*

2.14.19.3.2. AF Form 4168, *COMSEC Responsible Officer and User Training Checklist*

2.14.20. Executes the Air Force EMSEC program.

2.14.20.1. Acts as the Air Force CTTA.

2.14.20.2. Performs EMSEC responsibilities as mandated by the AFSSI 7000-series publications. This includes developing necessary forms to include AF Form 4170, *Emission Security Assessments/Emission Security Countermeasures Reviews*

2.14.21. Manages the Air Force Information Assurance Assessment and Assistance Program (IAAP) according to AFI 33-230 (will become AFSSI 8560, *Information Assurance Assessment and Assistance Program).*

2.14.22. Develops the ConstellationNet IA domain architecture, related IA service profiles, and implementation guidance.

2.15. Air Force Office of Special Investigations (AFOSI). To the extent authorized by statute, Executive Order, and regulation, provides (on a recurring basis) to SAF/CIO A6, SAF/AQ, SAF/US, AFSPC/A6, 24th AF and other appropriate organizations with the following:

2.15.1. Threat information,

2.15.2. Analysis of counterintelligence (CI) threats, and

2.15.3. Cyber-CI threat assessments concerning current and emerging threats to the AF-GIG for developing IA countermeasure capabilities in support of the Air Force IA Program and IS IA Program.

2.16. Air Force Personnel Center (AFPC). Provides IA awareness and education for PALACE ACQUIRE-accessioned civilians through the civilian career programs according to the requirements outlined in DoD 8570.01-M.

2.17. United States Air Force Academy.

2.17.1. Conducts IA education during initial military training according to the requirements outlined in DoD 8570.01-M.

2.17.2. Coordinates IA education materials with AFNIC.

2.18. Single Manager, Program Manager, or Project Manager. Identifies, implements, and ensures full integration of IA into all phases of their acquisition, upgrade, or modification programs, including initial design, development, testing, fielding, operation, and sustainment. Reference AFI 63-101, *Acquisition and Sustainment Life Cycle Management* and AFI 33-210 for guidance.

2.19. Other Agencies Acquiring or Developing Information Technology. Assume single manager responsibilities when developing systems or software outside a program management office structure. Reference AFI AFI 63-101 and AFI 33-210 for guidance.

2.20. Designated Accrediting Authority. Reference AFI 33-210 for DAA appointment, assignment, delegation, training requirements, and key roles and responsibilities.

2.20.1. Manages and executes the Air Force IS IA Program according to this instruction and AFI 33-210.

2.20.2. Makes appropriate decisions to balance security requirements, mission, and resources against the defined or perceived threat.

2.20.3. Approves exceptions, deviations or, waivers to Air Force IA requirements according to this instruction and AFI 33-210 for ISs under their purview.

2.21. Information System Owners (ISO). Reference AFPD 33-2 and AFI 33-210 for ISO assignment, roles and responsibilities.

2.22. System Level Information Assurance Manager (IAM). (*NOTE:* For system-level IA program see AFI 33-210.

2.22.1. Develops an IS-level IA program that identifies:

2.22.1.1. IA Architecture, requirements, objectives, and policies.

2.22.1.2. Personnel.

2.22.1.3. Processes and procedures.

2.22.2. Receives training and certification to DoD baseline requirements at IA Technical Level II or III, as applicable. Completes and maintains required IA Workforce Management training according to *Air Force Implementation Plan For DoD 8570.01-M*.

2.22.3. Implements and maintains an IS-level IA program and documents the IA program through the Air Force C&A process in AFI 33-210.

2.23. System Level Information Assurance Officer (IAO). (*NOTE:* For system-level IA program see AFI 33-210. Assists the enclave or information system-level IAM in meeting the duties and responsibilities outlined in paragraph 2.23., above and:

2.23.1. Receives training and certification to DoD baseline requirements at IA Technical Level I or II, as applicable. Completes and maintains required IA Workforce Management training according to *Air Force Implementation Plan For DoD 8570.01-M*.

2.23.2. Ensures all users have the requisite security clearances and supervisory need-to-know authorization, and are aware of their IA responsibilities before being granted access to Air Force ISs according to AFSSI 8522, *Access to Information Systems*.

2.23.3. In coordination with the IAM, initiates protective or corrective measures when an IA incident or vulnerability is discovered according to AFI 33-138, *Enterprise Network Operations Notification and Tracking*.

2.23.4. Ensures IA and IA-enabled software, hardware, and firmware comply with appropriate security configuration guidelines as referenced in Chapter 3 of this instruction.

2.23.5. Ensures all IS IA-related documentation is current and accessible to properly authorized individuals.

2.23.6. Implements and enforces all Air Force IS IA policies and procedures, as defined by its security C&A documentation as prescribed by AFI 33-210.

2.24. MAJCOM IA Office or Function. Develops, implements, oversees, and maintains a MAJCOM IA program that identifies IA architecture, requirements, objectives and policies; personnel; and processes and procedures.

2.24.1. Designates an IAM (for organization-level IA program) to SAF/A6NI and AFNIC. Individuals in this position must be US citizens.

2.24.2. Receives training and certification to DOD baseline requirements at IA Management Level III. Completes and maintains required IA Workforce Management training according to *Air Force Information Assurance Certification Implementation Plan* (will become AFSSI 8570). *NOTE*: If the individual is performing only COMSEC management duties, DoD 8570.01-M does not require the individual to be certified under this program.

2.24.3. Plans, organizes, implements, and controls MAJCOM COMSEC activities. Acts as the MAJCOM COMSEC office of primary responsibility. Executes roles and responsibilities in the AFSSI 4000-series publications.

2.24.4. Establishes COMPUSEC within the MAJCOM IA office and is the office of primary record for MAJCOM COMPUSEC. Executes roles and responsibilities in the AFSSI 8500-series publications.

2.24.5. Establishes EMSEC within the MAJCOM IA office and is the office of primary responsibility for MAJCOM EMSEC requirements. Executes roles and responsibilities in the AFSSI 7000-series publications.

2.24.6. Serves as a member of any appropriate Configuration Control Boards (CCB) or steering groups to address MAJCOM IA program issues.

2.24.7. Coordinates IAAP visits and associated responsibilities according to AFI 33-230 (will become AFSSI 8560).

2.24.8. Ensures proper identification of manpower and personnel assigned to IA functions. Ensure this information is entered and maintained in the appropriate Air Force personnel databases.

2.24.9. Maintain   organizational   e-mail   account   with   an   SMTP   alias   of **<majcom>.ia@us.af.mil.**

2.25. Wing IA Office. Develops, implements, oversees and maintains a wing IA program that identifies IA architecture, requirements, objectives and policies; personnel; and processes and procedures. *NOTE:* For bases with more than one wing, the designated host wing is responsible

to provide this function, unless otherwise indicated in an agreement (e.g. Memorandum of Understanding).

2.25.1. Designates an IAM (for organization-level IA program) to their MAJCOM IA office. Individuals in this position must be US citizens.

2.25.2. Receives training and certification to DOD baseline requirements at IA Management Level I or Level II for all assigned IA personnel. Completes and maintains required IA Workforce Management training according to *Air Force Information Assurance Certification Implementation Plan* (will become AFSSI 8570). *NOTE*: If the individual is performing only COMSEC management duties, DoD 8570.01-M does not require the individual to be certified under this program.

2.25.3. Manages the overall COMSEC posture of their installation. Appoints one primary and at least one alternate COMSEC manager to oversee the wing COMSEC program and to assist and advise them in COMSEC matters. The wing commander may delegate appointment authority to the unit commander of the supporting COMSEC account.

2.25.4. Establishes COMPUSEC in the host wing IA office. The IA office addresses all COMPUSEC requirements on the base, including those of tenant units (i.e., FOAs, DRUs, and other MAJCOM units) unless formal agreements exist.

2.25.5. Establishes EMSEC in the host wing IA office. The IA office addresses all EMSEC requirements on the base, including those of tenant units (i.e., FOAs, DRUs, and other MAJCOM units) unless there are other formal agreements.

2.25.6. Assists all base organizations and tenants in the development and management of their IA program.

2.25.7. Provides oversight and direction to IAOs (for organization-level IA programs) according to this instruction and specialized IA publications. Specific responsibilities include but are not limited to:

2.25.7.1. Ensures IAOs receive proper IA management training.

2.25.7.2. Ensures IAOs are aware of and follow IA policies and procedures.

2.25.7.3. Ensures IAOs review weekly alerts, bulletins, and advisories impacting the security of an organization's IA program.

2.25.8. Ensures security instructions, guidance, and standard operating procedures (SOP) are prepared, maintained, and implemented by each unit.

2.25.9. Monitors implementation of security guidance and directs appropriate actions to remedy security deficiencies.

2.25.10. Ensures IA inspections, tests, and reviews are coordinated.

2.25.11. Ensures all IA management review items are tracked and reported.

2.25.12. Develops reporting procedures.

2.25.12.1. Report security violations and incidents to the DAA and Air Force network operations activities according to AFI 33-138, *Enterprise Network Operations Notification and Tracking*.

2.25.12.2. Ensures incidents are properly reported to the DAA and the Air Force network operations reporting chain, as required, and that responses to IA-related alerts are coordinated; all according to the requirements of AFI 33-138.

2.25.13. Ensures procedures are developed and implemented according to configuration management (CM) policies and practices for authorizing use of software on ISs.

2.25.14. Serves as member of the base-level CM board or delegates this responsibility to an appropriate IAO.

2.25.15. Maintain   organizational   e-mail   account   with   an   SMTP   alias   of **<wing>.ia@us.af.mil**.

2.26. Organizational Commander. The organizational commander may locate his/her information assurance related roles and responsibilities in AFI 33-101, *Commanders Guidance and Responsibilities*.

2.27. Organizational IAO. IAOs are assigned to each organization by the organization commander or other cognizant authority (i.e., group-level commander, Wing IA office) when IA functions are consolidated to a central location or activity.   Additional (subordinate) IAO positions may be assigned for additional support at the discretion of organizations or based upon mission requirements, however, only one primary and one alternate IAO is required.   An organizational IAO:

2.27.1. Develops, implements, oversees, and maintains an organization IA program that identifies IA requirements, personnel, processes, and procedures.

2.27.2. Receives training and certification to DoD baseline requirements at IA Management Level I. Completes and maintains required IA Workforce Management training according to *Air Force Information Assurance Certification Implementation Plan* (will become AFSSI 8570).

2.27.3. Supervises the organization's IA program.

2.27.4. Implements and enforces all Air Force IA policies and procedures using the guidance within this instruction and applicable specialized IA publications.

2.27.5. Assists the wing IA office in meeting their duties and responsibilities.

2.27.6. Ensures all users have the requisite security clearances, supervisory need-to-know authorization, and are aware of their IA responsibilities (via IA training) before being granted access to Air Force ISs according to AFSSI 8522.

2.27.7. Ensures all users receive IA refresher training on an annual basis.

2.27.8. Ensures IT is operated, used, maintained, and disposed of properly and in accordance with the IT's security C&A documentation as prescribed by AFI 33-210.

2.27.9. Ensures proper CM procedures are followed. Prior to implementation and contingent upon necessary approval, according to this instruction and AFI 33-210, coordinates any changes or modifications to hardware, software, or firmware with the wing IA office and system-level IAM or IAO.

2.27.10. Reports IA incidents or vulnerabilities to the wing IA office.

2.27.11. In coordination with the wing IA office, initiates protective or corrective measures when an IA incident or vulnerability is discovered.

2.27.12. Implements required IA (COMSEC, COMPUSEC and EMSEC) countermeasures.

2.27.13. Maintains IA countermeasures.

2.27.14. Initiates requests for temporary and permanent exceptions, deviations, or waivers to IA requirements or criteria according to this instruction and applicable specialized IA publications.

2.27.15. When called upon to assist with an assessment conducted by the DIB CS/IA program office, will provide subject matter experts to analyze the data and provide recommendations for further action.

2.28. Information System Users. Authorized users shall comply with the guidance within AFI 33-100, *User Responsibilities and Guidance For Information Systems*.

2.29. Defense Industrial Base Cyber Security/Information Assurance (DIB CS/IA) Program Office. Works cooperatively with Cleared Defense Contractors to ensure protection for unclassified Department of Defense program data residing on contractor networks. As part of this work, the DIB CS/IA program office conducts damage assessments on data compromised as a result of adversary intrusions into those contractor networks.

Chapter 3

POLICY

Section 3A—Air Force IA Program

3.1. Air Force IA Program. The Air Force IA Program synchronizes and standardizes the IA requirements of Air Force ISs through the following means:

3.1.1. Integration of IA into all aspects of the Air Force Enterprise Architecture according to AFI 33-401.

3.1.2. Coordination of IA projects across multiple investments through Lead Command management according to AFI 10-901.

3.1.3. Improving the Air Force IT and National Security Systems (NSS) acquisition and fielding process through the IT Lean Process according to AFI 63-101 and AFI 33-210. Improvements are achieved in this streamlined process through appropriate oversight, standardized design and test, networthiness assessment, and fielding processes. The IT Lean Process aligns with the DIACAP required for all DoD-owned or controlled ISs that receive, process, store, display, or transmit DoD information. It does not alleviate the need to execute the DIACAP; however, the IT Lean Process and the integrated IA Controls in the Security, Interoperability, Supportability Sustainability, and Usability (SISSU) checklist can help the program team identify IA requirements. Refer to AFI 33-210 for complete policy and pointers to implementation procedures.

3.1.4. Clear assignment of Air Force organizational and IT level IA roles and responsibilities are outlined via this instruction and supporting IA specialized publications.

3.1.5. Development and management of a professional IA workforce according to the *Air Force Information Assurance Certification Implementation Plan* (will become AFSSI 8570).

3.2. IA Strategy. IA is traced, by SAF/A6N, as a programmatic entity in the Planning, Programming, Budgeting, and Execution system with visibility extended into budget execution. Air Force strategic IA goals and annual IA objectives are established (according to the DoD Information Management Strategic Plan). Funding and progress toward those objectives are tracked, reported, and validated through the Air Force IA Strategic Plan (upon approval of the plan).

3.3. Air Force Specialized IA Publications. These publications document implementation of Air Force IA policy objectives, under the authority of AFI 33-102, *Communications and Information Specialized Publications*. These publications are numbered based upon the primary subject groups cited below. Publication OPRs will regularly update or expand the content to keep pace with new threats and manage any challenges associated with introduction of emerging technologies.

3.3.1. AFSSI 3000 Series – COMSEC Equipment.

3.3.2. AFSSI 4000 Series – COMSEC Operations.

3.3.3. AFSSI 7000 Series – EMSEC.

3.3.4. AFSSI 8500 Series – IA Implementation.

3.3.5. As described in AFI 33-102, the unclassified specialized publications will be hosted on the Air Force IA website (**https://private.afca.af.mil/ip**). The For Official Use Only (FOUO) specialized publications will be hosted on the *Air Force IA Documentation (FOUO) Community of Practice (CoP)* (H**https://afkm.wpafb.af.mil/ASPs/CoP/ClosedCOP.asp?Filter=OO-SC-CA-11H**). Classified specialized publications will be acquired from the office of primary responsibility.

3.4. IA Workforce. This instruction and supporting IA specialized publications standardize the naming conventions and functions of Air Force organizational (management) and IT level (technical or system-level) IA personnel. These documents also prescribe training and certification requirements according to national and DoD policy consistent with and supplementary to the guidance outlined in the *Air Force Information Assurance Certification Implementation Plan* (will become AFSSI 8570).

3.5. IA Awareness. All authorized users of Air Force IT must maintain an understanding of Air Force IA policies and procedures commensurate with their individual responsibilities. For a list of these and other user responsibilities, reference AFI 33-100.

3.6. Network Defense (NetD). Reference the below guidance for NetD:

3.6.1. AFPD 10-7, *Information Operations*, and subordinate AFIs govern Network Defense and INFOCON procedures.

3.6.2. AFPD 13-3, *Air Force Network Operations (AFNetOps)*, governs command and control of the AF-GIG.

3.7. IA Assessments. Designated Air Force (and DoD) activities will regularly and systematically assess the IA posture of Air Force networks and ISs as well as IA services and supporting infrastructures.

3.7.1. Auditors perform audits according to Air Force Audit Agency guidance.

3.7.2. Authorized activities perform host and network vulnerability or penetration testing according to guidance published by USAF/A3O-CN.

3.7.3. ISOs and PMs comply with formal testing and certification activities according to AFI 33-210.

3.7.4. Performance measures and metrics will assess enterprise-wide (and individual elements where appropriate) IA performance and assess IA trends. The measurements and metrics will encompass, but are not limited to, federal and DoD IA reporting requirements.

3.7.5. Information Assurance Assessment and Assistance Program. The IAAP is a staff function whose purpose is to "find and fix" wing level IA problems. It is neither a function of, nor does it replace Inspector General or Air Force Audit Agency activities. The IAAP accomplishes "staff assistance" by reviewing and assessing processes, identifying problems, providing assistance to help resolve the problems, and recommending solutions. The IAAP team provides technical and training assistance in all IA areas. The IAAP consists of two parts: assessment and assistance. IAAPs are performed according to AFI 33-230 (will become AFSSI 8560) through the review of areas itemized on AF Form 4160, *Information Assurance Assessment and Assistance Program (IAAP) Criteria*.

3.8. Notice and Consent Certification. All Air Force installations, circuits, and ISs must comply with DoD notice and consent certification requirements for monitoring to occur by authorized activities. Comply with installation certification procedures found in AFI 33-219, (Section C) (will become AFSSI 8561).

3.9. Connection Management. SAF/A6N provides Air Force representation to the Defense Information Systems Network (DISN) Security Accreditation Working Group (DSAWG). The DSAWG represents the DISN community and advises the DISN DAAs of likely community acceptance or rejection of community risk. DISN connection decisions rest with the four DISN DAAs. SAF/A6N will work with Air Force activities involved in the adjudication of conflicts related to DISN connection decisions.

3.9.1. Air Force activities adhere to the DISA Connection Approval Process if the system is connected to the Non-Secure Internet Protocol Router Network (NIPRNet) or SIPRNet. Connection Approval Process information can be found at **http://iase.disa.mil/cap/index.html**. For all Air Force ISs accessing the DISN-SIPRNet, get appropriate service (e.g., DISA) coordination and authorization before proceeding with combatant command coordination and/or Joint Staff approval.

3.9.2. Air Force activities adhere to the guidance in AFI 33-210 for connection approval to the AF-GIG.

3.10. Configuration Management. The program manager (or designee) shall:

3.10.1. Review all changes to the configuration of IT (i.e., the introduction of new IT, changes in the capability of existing IT, changes to the infrastructure, procedural changes, or changes in the authorized or privileged user base, etc.) for IA impact prior to implementation.

3.10.2. Ensure interoperability and compatibility with existing Air Force standard IA policies and procedures according to the Air Force i-TRM (**https://itrm.hq.af.milH**).

3.11. IA Products. Reference AFI 33-210 for guidance on specified robustness of solutions and product specification and evaluation requirements. Check the Air Force Evaluated/Approved Products List (**https://afkm.wpafb.af.mil/IAH**) for recommended products and implementation guidance, respectively.

3.12. Security Configuration and Implementation. IA reference documents, such as National Institute of Standards and Technology Special Publications, DISA Security Technical Implementation Guides (STIG), and NSA Security Configuration Guides represent a collection of resources for the secure configuration, implementation and deployment of IA- and IA-enabled IT products that require use of the product's IA capabilities. Air Force specialized publications (AFSSIs, Air Force Technical Orders, etc.) may supplement these documents and provide Air Force specific implementation guidelines or guidance on the management of specific Air Force IA programs. Apply these IA documents to establish and maintain a minimum baseline security configuration and posture.

3.13. Key Management Infrastructure (KMI). The KMI provides a common unified process for the secure creation, distribution, and management of cryptographic products, such as asymmetric keys (e.g., PKI) and traditional symmetric keys (e.g., Electronic Key Management System) that enable security services for information systems. KMI-enabled services includes access control and identification and authentication.

3.13.1. PMs and IA professionals implement key management procedures according to AFI 33-202, Volume 6 (will become AFSSI 8520) for Public Key Infrastructure (PKI) and the appropriate AFSSI 3000- or 4000-series publication for specific cryptographic products.

3.13.2. PMs and IA professionals implement Identification and Authentication (I&A) using the DoD PKI Class 3 certificate and hardware security token, when available, according to AFI 33-202, Volume 6 (will become AFSSI 8520).

3.14. Air Force IA Support Services. AFNIC supports the Air Force IA program through the maintenance of the Air Force IA website, AF IA CoP: **https://afkm.wpafb.af.mil/IA** (via the AF portal: **https://wwwd.my.af.mil/afknprod/IA**), Air Force portion of DIACAP Knowledge Service, and traditional collaboration tools (i.e., electronic mail, the Air Force Portal, etc.) These resources provide immediate access and awareness to current Air Force, DoD and federal IA and IA-related policy and guidance, including recent and pending changes to Air Force policy and Air Force/DoD IA controls.

Section 3B—Air Force Information System IA Program

3.15. Air Force Information System IA Program. IAMs (enclave or system-level) are responsible for establishing, implementing, and maintaining the Air Force IS IA program.

3.15.1. IAMs will ensure their IS IA programs integrate with the Air Force IA Program using the Air Force C&A program AFI 33-210. Tracking and reporting management review items will be accomplished using the information registered in Enterprise Information Technology Data Repository (EITDR).

3.15.2. All elements of an Air Force IS IA program are developed, documented, implemented, and maintained through the Air Force C&A program. This program is the mechanism for coordinating IA requirements and capabilities between DoD and Air Force ISs, their supporting enclaves and the AF-GIG using a common baseline of standards referred to as IA Controls (see below). The Air Force C&A program includes guidance mandated by AFI 33-210 with implementation guidelines outlined by this instruction and specific procedure or program implementation through supporting specialized IA publications.

3.15.3. The IAM implements their IA program with the assistance of IAOs (system-level), as required, and other privileged users (network administrators, system administrators, database administrators, web administrators, etc.)

3.16. IA Controls. System designation, Mission Assurance Category (MAC) and confidentiality level (CL) establishment, as mandated by AFI 33-210, assist in the proper determination and management of IA requirements. These IA requirements are primarily expressed in the form of IA Controls. IA Controls, defined in detail within DoDI 8500.2, provide a common management language for establishing IA needs or conditions. These controls ensure systems are designed to meet those needs; implemented IA solutions are tested and validated; changes to the validated baseline are managed; interconnections to other ISs are coordinated; and provide a method for reporting IA readiness and posture. The baseline IA Controls for each of the combinations of MAC and CL are outlined within the enclosures to DoDI 8500.2.

3.16.1. PMs and/or IAMs identify and include DoD IA Controls in the design, acquisition, installation, operation, upgrade, or replacement of all Air Force ISs. DOD IA Controls applicable to Air Force ISs must be addressed in all appropriate requirement documents. Additionally, DoD IA Controls are supplemented as follows:

3.16.1.1. The Air Force establishes IA Controls that apply to ISs residing on or connecting to the AF-GIG, if necessary. Air Force IA controls must be applied to Air Force ISs; Guest ISs (formerly known as Non-Air Force ISs; reference AFI 33-210 are not required to implement Air Force component IA controls. The Air Force IA Controls do not contradict nor negate DoD baseline IA Controls. They add to or supplement DoD IA Controls with Air Force specific requirements, implementation guidelines or fill gaps between national and DoD level IA requirements. At no time will Air Force IA Controls degrade interoperability across both the GIG and AF-GIG. As with DoD IA Controls, Air Force IA Controls are uniquely named and formally catalogued. EITDR provides the reference for these Air Force IA Controls and also serves as the vehicle for measuring and reporting compliance throughout the life cycle of an IS. Air Force instructions and specialized publications provide implementation guidelines for Air Force IA Controls. The first option is to propose the control to the DoD for inclusion in the baseline. If DoD declines to add them to the baseline, the Air Force may develop augmented controls according to the process in AFI 33-210.

3.16.1.2. Individual Air Force ISs may establish local, or augmented, IA Controls provided they are consistent with the paragraph above (3.16.1.1). Document these augmented controls through both the requirement and the C&A processes. If necessary, augmented controls provider a single system with additional protection from interconnected systems and address local threats or vulnerabilities. Local information system IA controls do not apply to other information systems and may not be used to deny connectivity of systems which meet baseline IA controls according to this instruction and AFI 33-210.

3.16.2. PMs and/or IAMs coordinate Automated Information System (AIS) application-unique requirements for Joint and Defense-wide programs through the Air Force Authority to Connect process according to AFI 33-210. Coordination must occur through this process for connections to the AF-GIG rather than with local Air Force enclaves.

3.17. Information System Security Engineering (ISSE). IA will be integrated into the overall system acquisition and engineering process throughout the entire system life cycle via the information system security engineering (ISSE), according to DoDI 8500.2.

3.18. IT and IT Service Acquisitions. IA will be implemented in all IT and services acquisitions (including space and non-space acquisitions) at levels appropriate to the system characteristics and requirements throughout the acquisition life cycle, according to AFI 63-101 and AFI 33-210.

3.19. Communications Security. COMSEC refers to measures and controls taken to deny unauthorized persons information derived from information systems of the United States Government related to national security and to ensure the authenticity of such ISs. COMSEC protection results from applying security measures (i.e., crypto security, transmission security, etc.) to communications and information systems generating, handling, storing, processing, or using classified or sensitive government or government-derived information, the loss of which

could adversely affect the national security interest. It also includes applying physical security measures to COMSEC information or materials. Ensure all COMSEC activities comply with AFI 33-201, Volume 1, (FOUO) Communications Security (COMSEC) (will become AFSSI 4201, (FOUO) *Communications Security* (COMSEC), and associated Air Force IA specialized publications.

3.20. Computer Security for the Computing Environment. Protect IT, its operating system, peripherals (media and devices), applications, and the information it contains against loss, misuse, unauthorized access, or modification. Ensure compliance with the standard procedures outlined in AFSSI 8502, *Computer Security*. These procedures ensure the computing environment complements the Air Force IS IA program. AFSSI 8502 does not present IA requirements and capabilities. These are achieved through the proper application of IA Controls for an information system. AFSSI 8502 provides standard procedures derived from IA Controls and other measures for organizations to maintain the confidentiality, integrity, and availability of any Air Force IS IA program.

3.21. Emissions Security. Deny interception and exploitation of classified, and in some instances unclassified, information by containing compromising emanations within an inspectable space. Implement measures to protect against compromising emanations according to AFSSI 7700 and associated EMSEC specialized publications.

3.22. Identification and Authentication.

3.22.1. Protect access to ISs commensurate with the sensitivity of the information the IS processes. Implement individual and group I&A procedures (i.e., tokens, logon IDs, passwords, PINs, etc.) according to AFMAN 33-223, *Identification and Authentication* (will become AFSSI 8520).

3.22.2. Ensure only authorized users maintain access to workstations, applications, and networks.

3.22.3. Implement a comprehensive account management process according to AFMAN 33-223, (will become AFSSI 8520)

3.23. Access Control.

3.23.1. Ensure only authorized users can gain access to workstations, applications, and networks. Grant access to information systems based on need-to-know, classification level of the information, security clearance, for official government business, special access (e.g., foreign national access), Information Technology [IT] (formerly Automated Information Systems [AIS]) category designated requirements (i.e., local background investigation, national agency check, etc.), and qualifications. Comply with the implementation procedures and approval guidelines in AFSSI 8522 prior to granting system access. This guidance also provides procedures for Foreign National access, access suspension and other access requirements.

3.23.2. 1. AFSPC/A6 approved access by foreign nationals to unclassified Air Force Information Systems (IS) where AFSPC/A6 is the Designated Accrediting Authority (DAA) or has delegated that responsibility. Before foreign nationals are authorized access and use of ISs, they must meet the requirements of AFI 31-501 and AFSSI 8522. This includes the AF provisioned portion of the Global Information Grid (GIG), (e.g., unclassified base LAN).

3.23.2.1. AFNetOps/CC approved access by foreign nationals to unclassified Air Force Information Systems (IS) where AFNetOps/CC is the Designated Accrediting Authority (DAA) or has delegated that responsibility. Before foreign nationals are authorized access and use of ISs, they must meet the requirements of AFI 31-501 and AFSSI 8522. This includes the AF provisioned portion of the Global Information Grid (GIG), (e.g. unclassified base LAN).

3.23.2.2. Access by foreign nationals to Air Force Information Systems where AFSPC/A6 is not the DAA (SAP/SAR and Space) requires approval by the lead DAA for these systems. Before foreign nationals are authorized access and use of SAP/SAR and Space systems, they also must meet the requirements of AFI 31-501, AFSSI 8522 and applicable guidance for those information systems.

3.24. Controlling Maintenance Activities. Restrict IS maintenance to authorized personnel with a security clearance for the highest classification and most restricted category of information processed. Adhere to the requirements of AFSSI 8522 to develop processes for determining authorization and controlling access to information and resources.

3.25. Network Security for the Enclave Environment. The proper application of IA Controls through the C&A process establishes the IA requirements and capabilities for enclaves under the Air Force IS IA Program.

3.26. Boundary Defense. Deploy boundary defense mechanisms (i.e., firewalls, network intrusion detection systems, filtering services, etc.) at the Air Force enclave boundary to other enclaves and the wide area network; at layered or internal enclave boundaries; and at key points in the network, as required. Access to external, untrusted networks (i.e., public Internet, commercial wide area networks, Federal networks, etc.) is only permitted from a demilitarized zone (DMZ) in accordance with CJCSM 6510.01. Connections between Air Force enclaves and foreign (or coalition) networks also require a DMZ or CDS.

3.27. Malicious Logic Protection. Protect IT from malicious logic (i.e., virus, worm, Trojan horse, etc.) attacks. Apply an appropriate mix of preventive measures to include user awareness training, local policies, configuration management, and antivirus software according to the IA Controls for an Air Force IS IA Program and AFSSI 8502 for the computing environment.

3.28. Incident Response and Reporting. AFI 33-138 defines reportable incidents, outlines SOPs for incident response, outlines user requirements, and establishes requirements for incident response in the Air Force network response hierarchy. Refer to applicable network incident response instructions and responses for classified message incidents.

3.29. Vulnerability Management. Comply with AFI 33-138 for the vulnerability management process which includes systematic identification and mitigation of software and hardware vulnerabilities.

3.30. Information Operations Condition. The INFOCON system is a commander's alert system that establishes a uniform process for posturing and defending against malicious activity targeted against DoD ISs. The system provides a predefined sequence of actions necessary for achieving a common level of information security for DoD ISs. Comply with the requirements of AFI 10-710, *Information Operations Condition (INFOCON)*, for Air Force implementation of INFOCON requirements.

3.31. Interconnections Among Systems and Enclaves.

3.31.1. The only DoD authorized access to the Internet is via the NIPRNet. If an organization requires a connection to the Internet via a Commercial ISP submit a waiver request through SAF/A6N, as the Air Force representative to the DoD GIG Waiver Board. Use AF 4169, *Request for Waiver from Information Assurance Criteria*, to document the request. The waiver request shall explain how the non-NIPRNet Internet connections meet the minimum security standards established by the DSAWG and be accompanied by a plan to transition the connection to the NIPRNet.

3.31.2. For interconnections among ISs operating at different classification levels (i.e., between unclassified and classified, unclassified and foreign national [or coalition] systems, etc.), developers and users refer to the CDS guidance, use only CDS-approved devices evaluated and validated through Certification Test and Evaluation or have a sufficient body of evidence to conduct a thorough risk analysis and adhere to CDS configuration guidelines.

3.32. Cross-Domain Solutions. The CDS process governs all interconnections of domains with different levels of protection. The purpose and procedures of CDS are extracted from DoD, DISA, National Security Agency (NSA), and the Unified Cross Domain Management Office policies and guidance. For guidance on the most current CDS process, reference CJCSI 6211.02, *Defense Information System Network (DISN): Policy, Responsibilities and Processes*. CDS is application specific. Visit the Air Force IA website for specific Air Force guidance.

3.33. Mobile Code. To protect ISs from the threat of malicious or improper use of mobile code, comply with the requirements in DoDI 8552.01, *Use of Mobile Code Technologies in DoD Information Systems*, and AFI 63-101 and AFI 33-210 for system acquisition and fielding. System developers and implementers follow guidelines in all applicable STIGs according to paragraph 3.12, Security Configuration and Implementation. Additional mobile code guidance is available at H**https://iase.disa.mil/mcp/index.htmlH**.

3.34. Ports, Protocols, and Services (PPS). The Air Force PPS Management Program provides policy on the use of PPS within the Air Force. Follow the requirements for the design, documentation, approval, registration, and implementation of PPS across Air Force enclave boundaries according to AFSSI 8551, *Ports, Protocols, and Services (PPS) Management*.

3.35. Virtual Private Networks (VPN). VPNs provide an encrypted means of transporting data across the Internet, NIPRNet, and within the AF-GIG.

3.35.1. All Air Force locations with an Air Force Service Delivery Point shall bulk encrypt all af.mil to af.mil traffic before it traverses the NIPRNet. The configuration is known as the Air Force VPN (AF-VPN). All traffic shall pass through the AF-VPN from Air Force base to Air Force base. Geographically Separated Units requiring a protected connection to the NIPRNet will submit requirement for connection behind a Main Operating Base to the Combat Information Transport System (CITS) Lead Command, AFNIC/ECN.

3.35.2. Follow i-TRM standards for VPN products and solutions. Obtain interim approval to use other VPN products/solutions (i.e., Community of Interest, encrypted tunneling, etc.) from SAF/CIO A6 prior to implementation. Solution must comply with current DoD requirements (i.e., Common Criteria, National Information Assurance Partnership Evaluation and Validation Program, etc.). Submit VPN solution to AFNIC/EAC to enter the review and approval process. Developers will use AF 4169 to request the exception.

3.35.3. VPN protection or solution approval does not relieve programs from completing required C&A according to AFI 33-210.

3.36. Remote Access.

3.36.1. User Functions. Comply with the guidelines in DISA's *Secure Remote Computing* STIG for end-user and limited (general) remote access.

3.36.2. Privileged (Administrative) Functions. Remote access for privileged functions is discouraged, permitted only for compelling operational needs and is strictly controlled. Comply with the guidelines in DISA's *Secure Remote Computing* STIG for administrative access and complete C&A requirements according to AFI 33-210 prior to implementation.

3.37. Notice and Consent for Monitoring. All DoD telecommunication systems are subject to monitoring by authorized personnel. Ensure all users are warned the systems they are entering are DoD telecommunications systems, and are provided with appropriate privacy and security notices to include statements informing them they are subject to monitoring, recording and auditing. Comply with AFI 33-219 (Section C) (will become AFSSI 8561) for specific telecommunications system requirements.

3.38. IA Training and Certification. Depending upon assigned duties, all military, civilian, and contractor personnel performing IA roles and responsibilities with Air Force ISs require specialized IA training and certification.

3.38.1. General Training Requirements.

3.38.1.1. For COMSEC training requirements see AFKAG-1N, (FOUO) *Air Force Communications Security (COMSEC) Operations*; AFI 33-201, Volume 2, (FOUO) *Communications Security (COMSEC) User Requirements* (will become AFSSI 4211, (FOUO) *Communications Security (COMSEC) User Requirements*; and AFI 33-201, Volume 9, (FOUO) *Operational Instruction for Secure Voice Devices* (will become AFSSI 4209, (FOUO) *Operational Instruction for the Secure Voice Devices)..*

3.38.1.2. For EMSEC training requirements, see AFSSI 7700.

3.38.1.3. For DAA and other C&A training requirements, see AFI 33-210.

3.38.1.4. Several methods are available to supplement these training requirements: DISA provides CDs and DVDs, several vendors offer specialized IA courses, and other resources (including the Air Force Portal) provide computer-based training (CBT). Check the AF IA website for current information.

3.38.2. The *Air Force Implementation Plan For DoD 8570.01-M* provides guidelines for the official training and certification of personnel performing IA privileged user or management functions. This plan includes implementation guidance to:

3.38.2.1. Fully qualify privileged users and IAMs, through training and certification to DoD baseline requirements, to perform their IA duties.

3.38.2.2. Update IA privileged user or management requirements through appropriate manpower database and certification completion through appropriate personnel database. Civilian data is recorded in the Defense Civilian Personnel Data System. Military data is recorded with Special Experience Identifiers for Enlisted and with Experience Sets for

Officers on the Unit Manning Document and in the Military Personnel Data System. Contractor certification requirements are identified in the respective statement of work.

3.38.2.3. Ensure collection of metrics and submission of reports to the Assistant Secretary of Defense for Networks and Information/DoD CIO to support planning and analysis of the IA workforce and annual FISMA reporting.

3.39. IA Awareness and Education. Authorized users will receive initial IA orientation and annual (every 12 months) awareness training to ensure they know, understand, and apply the IA requirements of Air Force information and ISs. The minimum orientation and awareness requirements for users are outlined in DoD 8570.01-M.

3.39.1. Air Force personnel using other than Air Force ISs are subject to the training requirements of the service or agency providing network service. If the providing service or agency does not have a program, Air Force personnel using DoD ISs will complete the Air Force training.

3.39.2. Users of Air Force ISs will complete refresher training prior to deploying if current training expires before the expected conclusion of the deployment.

3.40. Security Rules of Behavior or Acceptable Use Policy. The Air Force IA Awareness training describes the fundamentals of IA operations for Air Force information and ISs. The training outlines IA roles and responsibilities, expected behavior of all personnel, and consequences of inconsistent behavior or non-compliance. Completion of this training signifies user acknowledgement (understanding and acceptance) of the rules as a condition of access.

3.40.1. Depending upon the unique operating conditions or requirements of Air Force or other ISs, supplementary rules of behavior or acceptable use may be required. These rules must cover the same requirements (describe IA operations, delineate IA responsibilities and expected behavior, consequences of inconsistent behavior or non-compliance, etc.). Acknowledgement of the rules is also a condition of access to the IS.

3.40.2. If a user engages in conduct inconsistent with user IA awareness training, access to the information system may be suspended. Comply with the requirements in AFSSI 8522 for access suspension, reinstatement, or termination.

3.41. Wireless Services. Wireless services include but are not limited to wireless devices, systems, services, and technologies that are integrated or connected to DoD networks. The wireless services shall be considered part of the DoD networks (including systems for Joint use and Air Force systems that must interoperate directly with other Service or Coalition partner's networks).

3.41.1. They shall comply with:

3.41.1.1. The implementation guidance in DoD 8100.02.

3.41.1.2. The evaluation and validation requirements of DoDI 8500.2.

3.41.1.3. The C&A requirements of AFI 33-210.

3.41.1.4. Apply the guidelines in DISA's *Wireless* STIG for all wireless services and devices.

3.41.2. Wireless Local Area Networks (WLAN). WLANs will comply with the standard design developed by the CITS Program Office. Functional communities must procure WLAN compliant clients, follow guidance contained in DODI 8420.01, and ensure proper C&A of the system in accordance with AFI 33-210.

3.41.3. Wireless Wide Area Networks (WWAN). WWAN systems typically provide wireless broadband data services. Apply the guidelines in DISA's *Wireless* STIG for WWAN systems.

3.41.4. Radio Frequency Identification (RFID) Technologies. Comply with AFMAN 33-120, *Electomagnetic Spectrum Management*. Meet EMSEC requirements according to AFSSI 7700-series of publications.

3.41.5. Wireless Personal Area Network (WPAN). WPANs operate in the personal operating space of a user, which extends 10 meters in any direction. Examples of this technology include Bluetooth® devices. Apply the guidelines in DISA's *Wireless* STIG for WPANs.

3.41.6. Wireless Mice and Keyboards. Wireless keyboard and mice are widely available and use various wireless technologies such as WLAN, WPAN, Radio Frequency (RF), and Infra Red to transmit data to the computer. Wireless mice and keyboards must meet EMSEC requirements according to the AFSSI 7700-series of publications and comply with DISA's *Wireless* STIG.

3.42. Portable Electronic Devices (PED). PED is a generic title used to describe the myriad of small electronic items that are widely available. Almost all have wireless telecommunications capabilities that offer tremendous advantages for government users. It is becoming difficult to differentiate between these electronic devices as the trend is to combine capabilities and functions in various forms and format. Apply the general guidelines in DISA's *Wireless* and *Secure Remote Computing* STIGs for the use of PEDs. Comply with AFSSI 8502 for additional guidance on the use of PEDs in the computing environment.

3.43. Voice Over Internet Protocol. Comply with voice over Internet protocol requirements according to AFI 33-111, *Voice Systems Management*.

3.44. Using Hardware or Software Not Owned by the Air Force. Comply with the procedures of AFSSI 8502 before using public, contractor, other government service/agency, foreign, or private ISs to process sensitive or classified information.

3.45. Secure Remote Computing and Telecommuting.

3.45.1. The use of commercial (wired or wireless) ISP services for remote access is authorized provided the general guidelines in DISA's *Secure Remote Computing* STIG are followed for securing remote devices, including but not limited to workstations and PEDs.

3.45.2. Prior to implementing a telecommuting program, consult AFI 36-8002, *Telecommuting Guidelines For Air Force Reservists and Their Supervisors*. No further approval, beyond the requirements listed in AFI 36-8002, is required. Ensure vulnerabilities are assessed, with appropriate countermeasures employed, and documented in the C&A packages.

3.46. Physical Security.

3.46.1. Access to and Physical Protection of Computing Facilities. Employ physical security measures (i.e., access control, visitor control, physical control, testing, etc.) for network and computing facilities that process publicly releasable, sensitive, or classified information to only authorized personnel with appropriate clearances and a need-to-know according to AFI 33-115, Volume 1 and AFJI 31-102, *Physical Security*.

3.46.2. Workstation Security. Follow the procedures cited in AFSSI 8502 for workstation security in the computing environment.

3.47. Information Security. Comply with the requirements of AFI 31-401, *Information Security Program Management*, for workplace security procedures and storage of documents and IT equipment.

3.48. Remanence Security. All documents, equipment, and machine-readable media containing sensitive or classified data shall be cleared, sanitized, or destroyed before release to unauthorized personnel or outside DoD control (outside its security domain) according to AFSSI 5020, *Remanence Security* (will become AFSSI 8580, *Remanence Security*, and AFI 31-401.

3.49. Environmental Controls. Comply with environmental security requirements (i.e., lighting, fire, temperature/humidity, power, etc.) identified in IA controls that provide for both the availability and confidentiality of the information processed according to AFI 33-115, Volume 1.

3.50. Protected Distribution System (PDS). The transfer of national security information between controlled-access areas requires the use of NSA-endorsed products and services (see AFI 33-201, Volume 1 (FOUO) (will become AFSSI 4201 (FOUO) and AFSSI 7703, *Communications Security: Protected Distribution System [PDS]*).

3.51. Exceptions, Deviations, and Waivers. Exceptions, deviations, or waivers to this policy require documented justification from the DAA, using AF Form 4169. Exceptions, deviations, and waivers will then be forwarded to the OPR for the Air Force policy/implementation for further coordination or approval. Ensure the request makes a distinction between exceptions, deviations, and waivers.

3.51.1. An exception to policy is a temporary non-compliance with an expected fix date in the near term with mitigators in place.

3.51.2. A deviation to policy is a temporary or long-term, non-compliance with the use of a substitute measure to meet the requirement.

3.51.3. A waiver to policy is long term (sometimes permanent) non-compliance with appropriate mitigators (risk management) in place.

3.52. A Plan of Action and Milestones (POA&M). POA&M, also referred to as a corrective action plan, is distinct from exceptions, deviations, and waivers. POA&Ms assist security personnel in identifying, assessing, prioritizing, and monitoring the progress of corrective efforts for security weaknesses found in IT systems and programs. For more information on POA&Ms, reference C&A requirements in AFI 33-210.

Section 3C—Information Collections, Records, and Forms or Information Management Tools (IMT)

3.53. Information Collections: No information collections are created by this publication.

3.54. Prescribed Forms:

AF Form 4160, *Information Assurance Assessment and Assistance Program (IAAP) Criteria,*

AF Form 4167, *Two Person COMSEC Material Inventory*

AF Form 4168, *COMSEC Responsible Officer and User Training Checklist*

AF Form 4169, *Request for Waiver from Information Assurance Criteria*

AF Form 4170, *Emission Security Assessments/Emission Security Countermeasures Reviews*

AFCOMSEC Form 9, *Cryptographic Access Certificate*

3.55. Adopted Forms:

AF Form 847, *Recommendation for Change of Publication*

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Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

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5 USC § 552a

10 USC § 2224

44 USC § 3602

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